

WHAT IS CLAIMED IS:

1. An information processing apparatus comprising:
recognition means for recognizing a status of a
printing apparatus; and

5 decision means for, in a case of assigning at least
a part of a print job which is assumed to be printed by
the printing apparatus to another printing apparatus in
accordance with the status recognized by said
recognition means, deciding the other printing apparatus
10 in accordance with a paper ejection type of the other
printing apparatus.

2. The information processing apparatus according to
claim 1, wherein the print job comprises a distributed
15 job.

3. The information processing apparatus according to
claim 2 further comprising acknowledging means for
acknowledging a paper ejection type of the other
20 printing apparatus,

wherein said decision means decides the other
printing apparatus on the basis of an acknowledgement by
said acknowledging means of the paper ejection type of
the other printing apparatus.

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4. The information processing apparatus according to
claim 2 further comprising reassignment means for

assigning at least a part of the distributed job to another printing apparatus,

wherein said reassignment means assigns at least the part of the distributed job to the other printing apparatus decided by said decision means.

5. The information processing apparatus according to claim 3, wherein said acknowledging means acknowledges the paper ejection type of the other printing apparatus on the basis of information indicative of a paper ejection type obtained via a predetermined communication line.

6. The information processing apparatus according to claim 3, wherein said acknowledging means obtains information indicative of the paper ejection type of the other printing apparatus from a printer driver which generates print data interpretable by a printing apparatus.

7. The information processing apparatus according to claim 2, wherein the paper ejection type represents a direction of surface of ejected paper, and the direction is face-up or face-down.

8. The information processing apparatus according to claim 2, wherein the paper ejection type is an output

order of pages, and the output order is ascending or descending.

9. The information processing apparatus according to
5 claim 2, wherein said decision means decides to assign
at least a part of the distributed job to a
predetermined printing apparatus in a case of assigning
at least the part of the distributed job supposed to be
printed by the printing apparatus in accordance with the
10 status recognized by said recognition means.

10. The information processing apparatus according to
claim 9, wherein the predetermined printing apparatus is
a printing apparatus to which no distributed job has
15 been assigned.

11. The information processing apparatus according to
claim 9 further comprising designation means for
designating to printout at least the part of the
20 distributed job to a predetermined bin of the
predetermined printing apparatus decided by said
decision means.

12. The information processing apparatus according to
25 claim 2 further comprising determination means for, in a
case of assigning at least the part of the distributed
job supposed to be printed by the printing apparatus to

another printing apparatus in accordance with the status
recognized by said recognition means, determining
whether the other printing apparatus which prints pages
preceding to the distributed job assigned to the
5 printing apparatus produces a face-down output,

wherein if said determination means renders an
affirmative decision, then said decision means assigns
at least the part of the distributed job supposed to be
printed by the printing apparatus to the other printing
10 apparatus that prints the preceding pages.

13. The information processing apparatus according to
claim 12, wherein if the distributed job includes the
first page of the print job prior to its division, then
15 said determination means performs determination on a
printing apparatus that prints a distributed job
including the final page of the print job instead of the
printing apparatus that prints the preceding pages.

20 14. The information processing apparatus according to
claim 2 further comprising determination means for, in a
case of assigning at least the part of the distributed
job supposed to be printed by the printing apparatus to
another printing apparatus in accordance with the status
25 recognized by said recognition means, determining
whether the other printing apparatus which prints pages.

following the distributed job assigned to the printing apparatus produces a face-up output,

wherein if said determination means renders an affirmative decision, then said decision means assigns
5 at least the part of the distributed jobs supposed to be printed by the printing apparatus to the other printing apparatus that prints the following pages.

15. The information processing apparatus according to
10 claim 14, wherein if the distributed job includes the final page of the print job prior to its division, then said determination means performs determination on a printing apparatus that prints a distributed job including the first page of the print job instead of the
15 printing apparatus that prints the following pages.

16. The information processing apparatus according to claim 4, wherein said reassignment means assigns all the distributed job supposed to be performed by the printing
20 apparatus to another printing apparatus.

17. The information processing apparatus according to claim 4 further comprising a unit for detecting a page or pages which have been printed by the printing
25 apparatus,

wherein said reassignment means reassigns the distributed job supposed to be performed by the printing

apparatus except the page or pages which have been printed by said printing apparatus to another printing apparatus.

- 5 18. The information processing apparatus according to claim 1, wherein the status is an abnormal state in the printing apparatus, and the abnormal state includes at least either of depletion of paper and power off state.
- 10 19. A printing system for performing printing by controlling a plurality of printing apparatuses comprising:
- recognition means for recognizing a status of a printing apparatus among said plurality of printing
- 15 apparatuses; and
- decision means for, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized by said
- 20 recognition means, deciding the other printing apparatus in accordance with a paper ejection type of the other printing apparatus.
20. A control method comprising:
- 25 a recognition step of recognizing a status of a printing apparatus; and

a decision step of, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said

5 recognition step, deciding the other printing apparatus in accordance with a paper ejection type of the other printing apparatus.

21. The control method according to claim 20, wherein
10 the print job comprises a distributed job.

22. The control method according to claim 21 further comprising an acknowledging step of acknowledging a paper ejection type of the other printing apparatus,
15 wherein, in said decision step, the other printing apparatus is decided on the basis of an acknowledgement by said acknowledging step of the paper ejection type of the other printing apparatus.

23. The control method according to claim 21 further comprising a reassignment step of assigning at least a part of the distributed job to another printing apparatus,

wherein, in said reassignment step, at least the
25 part of the distributed job is assigned to the other printing apparatus decided in said decision step.

24. The control method according to claim 22, wherein,
in said acknowledging step, the paper ejection type of
the other printing apparatus is acknowledged on the
basis of information indicative of a paper ejection type
5 obtained via a predetermined communication line.

25. The control method according to claim 22, wherein,
in said acknowledging step, information indicative of
the paper ejection type of the other printing apparatus
10 is obtained from a printer driver which generates print
data interpretable by a printing apparatus.

26. The control method according to claim 21, wherein
the paper ejection type represents a direction of
15 surface of ejected paper, and the direction is face-up
or face-down.

27. The control method according to claim 21, wherein
the paper ejection type is an output order of pages, and
20 the output order is ascending or descending.

28. The control method according to claim 21, wherein,
in said decision step, it is decided to assign at least
a part of the distributed job to a predetermined
25 printing apparatus in a case of assigning at least the
part of the distributed job supposed to be printed by

the printing apparatus in accordance with the status recognized in said recognition step.

28. The control method according to claim 28, wherein
5 the predetermined printing apparatus is a printing apparatus to which no distributed job has been assigned.

30. The control method according to claim 28 further comprising a designation step of designating to printout
10 at least the part of the distributed job to a predetermined bin of the predetermined printing apparatus decided in said decision step.

31. The control method according to claim 21 further comprising a determination step of, in a case of
15 assigning at least the part of the distributed job supposed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, determining whether
20 the other printing apparatus which prints pages preceding to the distributed job assigned to the printing apparatus produces a face-down output,

wherein if an affirmative decision is rendered in said determination step, then in said decision step, at
25 least the part of the distributed job supposed to be printed by the printing apparatus is assigned to the

other printing apparatus that prints the preceding pages.

3/2. The control method according to claim 31, wherein
5 if the distributed job includes the first page of the
print job prior to its division, then determination on a
printing apparatus that prints a distributed job
including the final page of the print job is performed
in said determination step instead of the printing
10 apparatus that prints the preceding pages.

3/3. The control method according to claim 21 further
comprising a determination step of, in a case of
assigning at least the part of the distributed job
15 supposed to be printed by the printing apparatus to
another printing apparatus in accordance with the status
recognized in said recognition step, determining whether
the other printing apparatus which prints pages
following the distributed job assigned to the printing
20 apparatus produces a face-up output,

wherein if an affirmative decision is rendered in
said determination step, then in said decision step, at
least the part of the distributed jobs supposed to be
printed by the printing apparatus is assigned to the
25 other printing apparatus that prints the following
pages.

34. The control method according to claim 33, wherein
if the distributed job includes the final page of the
print job prior to its division, then determination on a
printing apparatus that prints a distributed job
5 including the first page of the print job is performed
in said determination step instead of the printing
apparatus that prints the following pages.

35. The control method according to claim 23, wherein
10 said reassignment step assigns all the distributed job
supposed to be performed by the printing apparatus to
another printing apparatus.

36. The control method according to claim 23 further
15 comprising a step of detecting a page or pages which
have been printed by the printing apparatus,
wherein, in said reassignment step, the distributed
job supposed to be performed by the printing apparatus
except the page or pages which have been printed in said
20 printing apparatus is reassigned to another printing
apparatus.

37. The control method according to claim 20, wherein
the status is an abnormal state in the printing
25 apparatus, and the abnormal state includes at least
either of depletion of paper and power off state.

38. A control method of a printing system which performs printing by controlling a plurality of printing apparatuses comprising:

5 a recognition step of recognizing a status of a printing apparatus among said plurality of printing apparatuses; and

10 a decision step of, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, deciding the other printing apparatus in accordance with a paper ejection type of the other printing apparatus.

15 39. A computer readable program comprising:

a computer readable program code of a recognition step for recognizing a status of a printing apparatus; and

20 a computer readable program code of a decision step for, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, deciding the other printing apparatus in accordance with
25 a paper ejection type of the other printing apparatus.

40. The program according to claim 39, wherein the print job comprises a distributed job.

41. The program according to claim 40 further
5 comprising a computer readable program code of an acknowledging step for acknowledging a paper ejection type of the other printing apparatus,

wherein, in said decision step, the other printing apparatus is decided on the basis of an acknowledgement
10 by said acknowledging step for the paper ejection type of the other printing apparatus.

42. The program according to claim 40 further
comprising a computer readable program code of a
15 reassignment step for assigning at least a part of the distributed job to another printing apparatus,

wherein, in said reassignment step, at least the part of the distributed job is assigned to the other printing apparatus decided in said decision step.

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43. The program according to claim 41, wherein, in said acknowledging step, the paper ejection type of the other printing apparatus is acknowledged on the basis of information indicative of a paper ejection type obtained
25 via a predetermined communication line.

44. The program according to claim 41, wherein, in said
acknowledging step, information indicative of the paper
ejection type of the other printing apparatus is
obtained from a printer driver which generates print
5 data interpretable by a printing apparatus.

45. The program according to claim 40, wherein the
paper ejection type represents a direction of surface of
ejected paper, and the direction is face-up or face-
10 down.

46. The program according to claim 40, wherein the
paper ejection type is an output order of pages, and the
output order is ascending or descending.
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47. The program according to claim 40, wherein, in said
decision step, it is decided to assign at least a part
of the distributed job to a predetermined printing
apparatus in a case of assigning at least the part of
20 the distributed job supposed to be printed by the
printing apparatus in accordance with the status
recognized in said recognition step.

48. The program according to claim 47, wherein the
25 predetermined printing apparatus is a printing apparatus
to which no distributed job has been assigned.

49. The program according to claim 47 further comprising a computer readable program code of a designation step for designating to printout at least the part of the distributed job to a predetermined bin
5 of the predetermined printing apparatus decided in said decision step.

50. The program according to claim 40 further comprising a computer readable program code of a
10 determination step for, in a case of assigning at least the part of the distributed job supposed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, determining whether the other printing
15 apparatus which prints pages preceding to the distributed job assigned to the printing apparatus produces a face-down output,

wherein if an affirmative decision is rendered in said determination step, then in said decision step, at
20 least the part of the distributed job supposed to be printed by the printing apparatus is assigned to the other printing apparatus that prints the preceding pages.

25 51. The program according to claim 50, wherein if the distributed job includes the first page of the print job prior to its division, then determination on a printing

apparatus that prints a distributed job including the final page of the print job is performed in said determination step instead of the printing apparatus that prints the preceding pages.

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52. The program according to claim 40 further comprising a computer readable program code of determination step for, in a case of assigning at least the part of the distributed job supposed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, determining whether the other printing apparatus which prints pages following the distributed job assigned to the printing apparatus produces a face-up output,

wherein if an affirmative decision is rendered in said determination step, then in said decision step, at least the part of the distributed jobs supposed to be printed by the printing apparatus is assigned to the other printing apparatus that prints the following pages.

53. The program according to claim 52, wherein if the distributed job includes the final page of the print job prior to its division, then determination on a printing apparatus that prints a distributed job including the first page of the print job is performed in said

determination step instead of the printing apparatus that prints the following pages.

54. The program according to claim 42, wherein said
5 reassignment step assigns all the distributed job supposed to be performed by the printing apparatus to another printing apparatus.

55. The program according to claim 42 further
10 comprising a computer readable program code for detecting a page or pages which have been printed by the printing apparatus,

wherein, in said reassignment step, the distributed job supposed to be performed by the printing apparatus
15 except the page or pages which have been printed in said printing apparatus is reassigned to another printing apparatus.

56. The program according to claim 39, wherein the
20 status is an abnormal state in the printing apparatus, and the abnormal state includes at least either of depletion of paper and power off state.

57. A computer readable program for controlling a
25 printing system which performs printing by controlling a plurality of printing apparatuses comprising:

a computer readable program code of a recognition step for recognizing a status of a printing apparatus among said plurality of printing apparatuses; and

a computer readable program code of a decision step
5 for, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized in said recognition step, deciding the other printing apparatus in accordance with
10 a paper ejection type of the other printing apparatus.

58. A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium, said product including:

15 first computer readable program code means for recognizing a status of a printing apparatus; and

second computer readable program code means for, in a case of assigning at least a part of a print job which is assumed to be printed by the printing apparatus to
20 another printing apparatus in accordance with the status recognized by said first computer readable program code means, deciding the other printing apparatus in accordance with a paper ejection type of the other printing apparatus.

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59. A computer program product comprising a computer usable medium having computer readable program code

means embodied in said medium for controlling a printing system which performs printing by controlling a plurality of printing apparatuses, said product including:

5 first computer readable program code means for recognizing a status of a printing apparatus among said plurality of printing apparatuses; and

 second computer readable program code means for, in a case of assigning at least a part of a print job which
10 is assumed to be printed by the printing apparatus to another printing apparatus in accordance with the status recognized by said first computer readable program code means, deciding the other printing apparatus in accordance with a paper ejection type of the other
15 printing apparatus.